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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,604	07/11/2003	Michael R. Manzano	TPTC-I-1002	2950
25315 7590 12/27/2007 BLACK LOWE & GRAHAM, PLLC 701 FIFTH AVENUE SUITE 4800 SEATTLE, WA 98104			EXAMINER PRICE, NATHAN E	
			ART UNIT 2194	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/617,604

Applicant(s)

MANZANO, MICHAEL R.

Examiner

Nathan Price

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007 and 19 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

WILLIAM THOMSON
SUPERVISOR, PATENT EXAMINER
4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application.

6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to communications received 21 May 2007 and 19 September 2007. Claims 1 – 33 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 May 2007 has been entered.

Response to Arguments

3. Applicant's arguments filed 21 May 2007 have been fully considered but they are not persuasive.

Regarding the objection to claim 31, it remains unclear which memory (the first, second or both memories) is being referenced by "the memory" in line 26.

Regarding claim 1, Applicant argues Saulpaugh fails to teach a mobile agent object discovering services available in a host-computing environment as claimed. However, Saulpaugh teaches searching and browsing for available services [col. 47

lines 6 – 11], which discovers services available in a host-computing environment as claimed.

Regarding claim 8, Applicant argues Saulpaugh fails to teach detecting requests, creating audit events and a logging database as claimed. However, Saulpaugh teaches creating a log in response to tracking use of services [col. 27 lines 8 – 18]. When a service is requested, an event must be created and added to the log to keep the log updated in order to implement the teachings of Saulpaugh.

Regarding new claims and added claim limitations added by amendment, see the current rejections.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide proper antecedent basis for the “data structure” in claim 33.

Claim Objections

5. Claim 31 is objected to because of the following informalities:
In claim 31, it is not clear which memory is being referenced in line 26.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what Applicant is attempting to claim as a data structure. Examiner is aware that "...applicant is not limited to the nomenclature used in the application as filed..." (MPEP 608.01(o)). However, it is not clear if "data structure" refers to an arrangement of data elements or an object that includes methods or some other element. If "data structure" refers to an arrangement of data elements, then it is not clear how the data structure is capable of executing as claimed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 - 18, 20 - 29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Saulpaugh et al. (US 7,016,966 B1; hereinafter Saulpaugh).

As to claims 1 - 7, Saulpaugh teaches:

[Claim 1] a method for a mobile agent object to discover services available in a host-computing environment, the method comprising:

the mobile agent object requesting a service listing from the host environment, the mobile agent object operable to execute in a first electronic device, halt execution in the first electronic device at an execution state, be transplanted to a second electronic device, and resume execution from the execution state in the second electronic device;

the host environment returning a service listing to the mobile agent object in response to the request for the service listing;

the mobile agent object determining if a particular service is within the returned service listing; and

the mobile agent object requesting the particular service if the particular service is determined by the mobile agent object to be within the returned service listing [col. 23 line 23 – col. 24 line 4; col. 47 lines 6 - 23; col. 48 lines 18 - 28];

[Claim 2] the mobile agent object moving to a computing environment other than the host-computing environment in response to determining that the particular service is not within the returned service listing [col. 43 lines 1 - 9; col. 3 lines 17 - 25; col. 23 lines 53 - 66; col. 97 lines 29 - 43];

[Claim 3] the host environment providing the particular service to the mobile agent object [col. 43 lines 42 - 50]; and

the mobile agent object incorporating the particular service [col. 2 lines 59 - 60; col. 3 lines 9- 16];

[Claim 4] the mobile agent object moving to a computing environment other than the host-computing environment in response to incorporating the particular service [col. 24 lines 1 - 4; col. 44 lines 18 - 49; col. 97 lines 29 - 43];

[Claim 5] the mobile agent object determining if a second particular service is within the returned service listing;

the mobile agent object requesting the second particular service if the second particular service is determined by the mobile agent object to be within the returned service listing;

the host environment providing the second particular service to the mobile agent object; and

the mobile agent object incorporating the second particular service [col. 102 lines 9 - 16; col. 47 lines 6 - 23; col. 48 lines 18 - 28; col. 43 lines 42 - 50; col. 2 lines 59 - 60; col. 3 lines 9 - 16];

[Claim 6] wherein the incorporated service comprises data [col. 16 lines 18 - 39],

[Claim 7] wherein the incorporated service comprises a process [col. 16 lines 18 - 39].

As to claims 8 - 13, Saulpaugh teaches:

[Claim 8] a method for an audit system in a host-computing environment to audit service events from a mobile agent object, the method comprising:

the audit system detecting a request for a service by a mobile agent object [col. 27 lines 8 - 18];

the audit system generating an audit event in response to detecting the request [col. 27 lines 8 - 18, 60 - 66]; and

the audit system logging the audit event in a database [col. 27 lines 8 - 18];

[Claim 9] the audit system notifying at least one audit plug-in in response to logging the audit event [col. 27 lines 52 - 66];

[Claim 10] the audit plug-in retrieving data from the database in response to the notifying [col. 27 lines 52 - 66];

[Claim 11] wherein the request for a service is a request for a directory service [col. 36 lines 36 - 44; col. 47 lines 6 - 23],

[Claim 12] wherein the generating of an event comprises communicating with a processor in the host-computing environment using an application program interface [col. 19 lines 26 - 27; col. 27 lines 8 - 18],

[Claim 13] further comprising:

the audit system detecting a second request for a service by a mobile agent object;

the audit system generating a second audit event in response to detecting the second request; and

the audit system logging the second audit event in a database [See the rejections of claims 1, 5 and 8].

As to claim 14, see the rejections of claims 1 and 8.

As to claim 15 - 17, see the rejections of claims 3, 9 and 10.

As to claims 18 and 20 - 23, Saulpaugh teaches:

[Claim 18] a computer system for hosting a mobile agent object having discovery ability, the system comprising:

a processor operable to facilitate communications between computer systems coupled by a network [col. 1 lines 24 - 29; the processor is inherent]; and

a memory coupled to the processor [inherent to be able to store the programs], the memory comprising:

a mobile-agent runtime environment operable to host a mobile agent object [Fig. 7; col. 14 lines 50 - 62], the mobile agent object operable to execute in a first electronic device, halt execution in the first electronic device at an execution state, be transplanted to a second electronic device, and resume execution from the execution state in the second electronic device [col. 23 line 23 – col. 24 line 4];

a discovery service object operable to list service objects available to a mobile agent object in response to a discovery request from the mobile agent object [col. 47 lines 6 - 23]; and

at least one service object operable to interact with the mobile agent object in response to a request for the at least one service object by the mobile agent [col. 2 lines 56 - 66; col. 48 lines 18 - 28];

[Claim 22] wherein the at least one service object comprises a second mobile agent object [col. 24 lines 1 - 4; col. 50 lines 29 - 45],

[Claim 23] wherein the at least one service object comprises a second discovery service object [col. 43 lines 42 - 50; col. 44 lines 18 - 49].

As to claims 20 and 21, see the rejections of claims 6 and 7.

As to claim 24, see the rejections of claims 8 and 18.

As to claims 25 and 26, see the rejections of claims 9 and 10.

[Claim 27] a network interface controller [inherent to operate with a network] operable to facilitate the movement of the mobile agent object from the mobile-agent runtime environment to a second mobile-agent runtime environment [col. 97 lines 29 - 43];

[Claim 28] the second mobile-agent runtime environment resides in a memory of one of the other computing environments [Fig. 7; col. 14 lines 50 - 62; col. 97 lines 29 - 43];

[Claim 29] the second mobile-agent runtime environment resides in a second memory in the host-computing environment [col. 14 lines 50 - 62; col. 97 lines 29 - 43].

As to claim 31, Saulpaugh teaches at least one service object within the first mobile-agent runtime environment operable to interact with the mobile agent object in

response to a request for the service object by the mobile agent object [col. 43 lines 42 - 50] and multiple clients in multiple environments [col. 14 lines 33 - 62]. See the rejection of claim 18 for details regarding limitations not specifically addressed in the rejection of claim 31.

As to claims 32 and 33, see the rejection of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saulpaugh as applied to claim 18 above, and further in view of admitted prior art. Saulpaugh fails to specifically disclose an injector process within the memory. However, paragraph 22 of Applicant's specification states that the injector program is well known in the prior art. Therefore, the prior art teaches the system further comprising an injector process within the memory, the injector process operable to launch the mobile agent object in the mobile-agent runtime environment. It would have been obvious to use an injector in combination with the disclosure of Saulpaugh because Saulpaugh does not restrict the ways that the programs can be launched and this is an existing technique.

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saulpaugh. Saulpaugh teaches or at least implies that the second mobile-agent runtime environment resides in a portion of the memory in the host-computing environment other than the portion of the memory where the first mobile-agent runtime environment resides [col. 14 lines 50 - 62; col. 23 lines 37 - 53]. Saulpaugh teaches that there can be multiple clients on the same device and that environments can include both a Java based and native code runtime environments. A second portion of memory is required to store the virtual machine [col. 2 lines 27 - 47].

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:00am - 2:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP



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